

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A freestanding rod-shaped particle comprising 2 to 50 segments, wherein the particle has a generally circular cross-section along its length, wherein the segment transitions are generally perpendicular to said length, wherein the particle length is from 20 nm to 50  $\mu$ m and the particle width is from 5 nm to 50  $\mu$ m, and

wherein at least one segment is comprised of a metal selected from the group consisting of: silver, gold, copper, nickel, palladium, platinum, cobalt, rhodium and iridium.

2. (Original) The particle of claim 1, wherein the particle length is from 500 nm - 30  $\mu$ m.

3. (Original) The particle of claim 1, wherein the particle length is from 1 - 15  $\mu$ m.

4. (Original) The particle of claim 1, wherein the particle width is from 10 nm - 2  $\mu$ m.

5. (Original) The particle of claim 1, wherein the particle width is from 30 nm to 500 nm.

6. (cancelled)

7. (Original) The particle of claim 1, comprised of 2 - 10 different types of segments.

8. (Original) The particle of claim 1, wherein the lengths of said segments is from 1 nm to 50  $\mu$ m.

9. (Previously presented) The particle of claim 1, wherein the lengths of at least one of said segments is from 50 nm to 15  $\mu\text{m}$ .

10. (Previously presented) The particle of claim 1, wherein the particle length is from 1 - 15  $\mu\text{m}$ , the particle width is from 30 nm to 2  $\mu\text{m}$ , and the lengths of at least one of said segments are from 50 nm to 15  $\mu\text{m}$ .

11. - 14. (cancelled).

15. (Previously presented) A freestanding particle comprising 2 to 50 segments, wherein the particle length is from 20 nm to 50  $\mu\text{m}$ , and the particle width is from 5 nm to 50  $\mu\text{m}$ , and wherein at least one of said segments is comprised of a superparamagnetic compound.

16. (Currently amended) ~~A freestanding~~ The particle of claim 1, comprising 2 to 50 segments, wherein the particle length is from 20 nm to 50  $\mu\text{m}$ , and the particle width is from 5 nm to 50  $\mu\text{m}$ , and wherein said particle can function as an electronic device or as part of an electronic device.

17. (Original) The particle of claim 16 wherein said electronic device or part of an electronic device is selected from the group consisting of a conductor, or diode, a transistor, a wire, a capacitor, a resistor, a negative differential resistance device, a resonant tunneling diode, a ferroelectric switch, a shift register and a delay line.

18. - 86. (cancelled)

87. (Previously presented) The particle of claim 1, wherein the particle length is from 1 - 15  $\mu\text{m}$ , the particle width is from 2  $\mu\text{m}$  to 50  $\mu\text{m}$ , and the lengths of said segments are from 50 nm to 15  $\mu\text{m}$ .

88. (New) A freestanding segmented rod-shaped particle manufactured by the deposition of a plurality of materials inside a template, comprising the method:

a) causing deposition of a first material into a pore of said template;  
b) causing deposition of a second material into said pore of said template, wherein the deposition of at least one of said first material and said second material is electrochemical deposition; and

c) releasing said segmented particle from said template to provide a freestanding segmented particle having a length from 10 nm to 50  $\mu\text{m}$  and a width from 5 nm to 50  $\mu\text{m}$ , wherein said particle has a generally circular cross-section along its length, wherein the segment transitions are generally perpendicular to said length, and wherein the particle comprises 50 or fewer segments, and wherein at least one of said segments has a length of at least 10 nm.

89. (New) The particle of claim 88, wherein the particle length is from 500 nm - 30  $\mu\text{m}$ .

90. (New) The particle of claim 88, wherein the particle length is from 1 - 15  $\mu\text{m}$ .

91. (New) The particle of claim 88, wherein the particle width is from 10 nm - 2  $\mu\text{m}$ .

92. (New) The particle of claim 88, wherein the particle width is from 30 nm to 500 nm.

93. (New) The particle of claim 88, comprised of 2 - 10 different types of segments.

94. (New) The particle of claim 88, wherein the lengths of said segments is from 1 nm to 50  $\mu\text{m}$ .

95. (New) The particle of claim 88, wherein the lengths of at least one of said segments is from 50 nm to 15  $\mu\text{m}$ .

96. (New) The particle of claim 88, wherein the particle length is from 1 - 15  $\mu\text{m}$ , the particle width is from 30 nm to 2  $\mu\text{m}$ , and the lengths of at least one of said segments are from 50 nm to 15  $\mu\text{m}$ .